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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,771	08/30/2001	Takahiro Fujishiro	566.40596X00	7574

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ALEXANDRIA, VA 22314

EXAMINER

JUNG, DAVID YIUK

ART UNIT	PAPER NUMBER
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2134

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/941,771

Applicant(s)

FUJISHIRO ET AL.

Examiner

David Y. Jung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 06 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

CLAIMS PRESENTED

Claims 1-10 are presented.

CLAIM REJECTIONS

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan laid open patent Hesei 11-289329 (cited by Applicant, inventor: Naor et al.) US Patent 5867578 (cited by Applicant, inventor: Brickell et al.)

Regarding claim 1, Naor teaches "A certificate validity authentication method wherein validity of a public key certificate issued by a certification authority which is different from a certification authority trusted by a terminal is authenticated in compliance with a request made by the terminal, comprising: the path search step of executing a process in which, with any certification authority set as a start certification authorization issue destination of a public key certificate issued by the start certification authority is checked, and subject to any certification authority included as the issue destination, an issue destination of a' public key certificate issued by the issue

destination certification authority is further checked, the process being continued until all of the issue destinations of the public key certificates become terminals, thereby to search for paths which extend from said start certification authority to terminal admitting certification authority having issued public key certificates to any terminals; the path verification step of executing for each of the paths detected by said path search step, a process in which, with said start certification authority set at an upstream side, a signature of the public key certificate issued by the terminal admitting certification authority on the pertinent path is verified in the light of the public key certificate issued by the certification authority located directly upstream, and subject to the verification having held good, a signature of the public key certificate issued by the terminal admitting certification authority located directly upstream is verified in the light of the public key certificate issued by the certification authority located directly upstream still further, the process being continued until said certification authority located directly upstream becomes said start certification authority, thereby to verify said paths (certification authority updating a search tree, authentication, node handling, etc.)."

These passages of Naor do not teach "the path registration step of registering in a database those of said paths whose verifications have held good by said path verification step; and the validity authentication step of complying with the request of the terminal for authenticating the validity of the public key certificate issued by the terminal admitting certification authority which is different from the certification authority trusted by said terminal, to judge said validity of said public key certificate as having been authenticated when the path between said certification authority trusted by said terminal

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and said start certification authority and the path between the different terminal admitting certification authority and said start certification authority are held registered in the database." in the sense of the claim.

Brickell teaches to have a "the path registration step of registering in a database those of said paths whose verifications have held good by said path verification step; and the validity authentication step of complying with the request of the terminal for authenticating the validity of the public key certificate issued by the terminal admitting certification authority which is different from the certification authority trusted by said terminal, to judge said validity of said public key certificate as having been authenticated when the path between said certification authority trusted by said terminal and said start certification authority and the path between the different terminal admitting certification authority and said start certification authority are held registered in the database (column 3, line 45 to column 4, line 63, i.e. multi-step digital signature system, distributed certifying authority)" for the motivation of efficiency (column 3, lines 45-65, e.g., decreasing the verification chain length)..

Hence, it would have been obvious to those of ordinary skill in the art at the time of the claimed invention to combine the teachings of Naor and Brickell for the motivation noted in the previous paragraphs so as to teach the claimed invention.

Regarding claim 2-8 (various path and verification handlings), such particular features are suggested by Brickell (see e.g., column 3, lines 5-40, i.e., various root handlings). Regarding claims 9, 10, these claims are apparatus and system analogs of

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claim 1. For the reasons noted in the rejection of claim 1, these claims are not patentable.

Conclusion

The art made of record and not relied upon is considered pertinent to applicant's disclosure. The art disclosed general background.

Points of Contact

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 746-7239, (for formal communications intended for entry)

Or:

(703) 746-5606 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Jung whose telephone number is (571) 272-3836 or Greg Morse whose telephone number is (571) 272-3838.

David Jung

Patent Examiner

A handwritten signature in black ink, consisting of a large, stylized 'D' followed by a series of loops and a long horizontal stroke.

6/27/05